KANTA

KANTA RUBBER PVT. LTD.

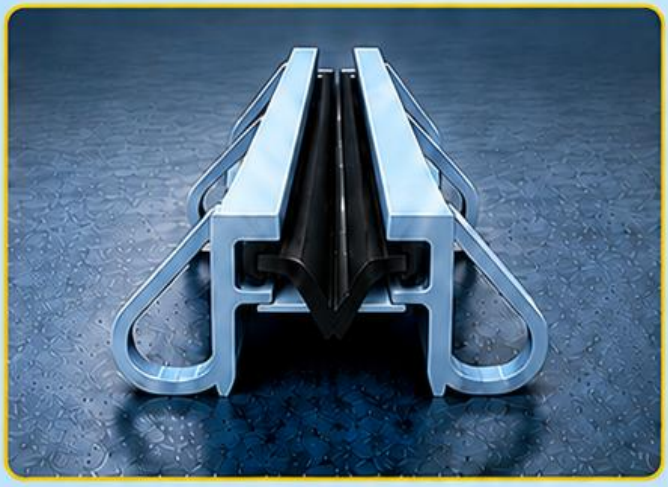
HYDERABAD INDIA

PRODUCT PROFILE

Bridge Bearings | Expansion Joints | Industrial Rubber Products









Manufactured & tested with reference to IRC, IS, AASHTO and ASTM requirements

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ABOUT KANTA RUBBER

Engineered rubber & structural components since decades of manufacturing in Hyderabad

Kanta Rubber Pvt. Ltd. is a Hyderabad-based manufacturer of bridge bearings, expansion joints, railway and metro joints, and allied engineered rubber products, supplied to national highway, railway, metro rail and industrial construction projects across India.

Our facility at I.D.A. Jeedimetla, Hyderabad, is equipped for compounding, moulding, vulcanising and fabrication of rubber-metal composite products, supported by an in-house testing laboratory for compression, shear and material-property verification. Products are manufactured and tested with reference to IRC:83, IS:3400, IS:12200, IS:15058, MORTH Specifications for Road and Bridge Works, RDSO drawings for railway and metro applications, and equivalent international references such as BS 5400-9, AASHTO LRFD / EN 1337 and UIC 772-2R.

From design assistance and material selection through to manufacture, testing and site support, our engineering team works with consultants and contractors to match each bearing and joint to project-specific load, movement and durability requirements.

Bridge Bearings	POT, Elastomeric, Metallic Guided, Pin Fixed, Rocker & Roller
Expansion Joints	Strip Seal, Modular Seal, Compression Seal, Slab Seal, Omega, Copper Strip
Special Products	Rubber Sheets, Industrial Hoses, PVC Water Stops
Reach	Hyderabad · Bengaluru · Mumbai — pan-India project support

WHY MANUFACTURERS SPECIFY KANTA

01 Engineering-Led
Every bearing and joint is sized to the project's actual load, movement and rotation demand rather than supplied off a generic shelf range.

02 Code Compliance
Manufactured and type-tested with reference to IRC, IS, MORTH and RDSO requirements, with material and performance records maintained for each order.

03 In-House Testing
A dedicated test press and material testing laboratory at our Hyderabad works verifies compression, shear and bond performance before dispatch.

04 Project Support
From drawing approval and fixing details to site installation guidance, our team stays involved through delivery and commissioning.

BRIDGE BEARINGS

POT · PTFE · Pin Fixed · Metallic Guided

POT bearings transfer heavy vertical loads from superstructure to substructure through a confined elastomeric disc acting as a POT, while permitting rotation and, where required, controlled horizontal movement. The family is manufactured in five functional configurations selected to suit the fixity and movement condition at each support.



Fixed Bearing — Restrains movement in both horizontal directions while permitting free rotation. Comprises base pot, piston and enclosed elastomeric rotation element.

Free (POT-cum-PTFE) Bearing — Permits rotation together with longitudinal and transverse movement, using a PTFE-on-stainless sliding interface in addition to the fixed-bearing components.

Guided Bearing — A sliding assembly that permits rotation and movement in one direction only, restraining the perpendicular direction — used where longitudinal or transverse movement alone is required at a support.

Metallic Guided Bearing — A sliding steel assembly that restrains horizontal force along a chosen direction while allowing free movement perpendicular to it, independent of the POT/PTFE bearing element.

Pin Fixed Bearing — A metal pin housed within a metal cylinder to transmit horizontal force in any direction in the horizontal plane while accommodating rotation about any axis.



Metallic Guided Bearing

A fabricated steel guide assembly providing a low-friction sliding restraint along one axis, used in combination with a POT or elastomeric bearing to carry the vertical load. Guide bars and sliding plates are machined for close tolerance and finished for corrosion protection.

— Restrains horizontal force in the guided direction
— Free sliding movement perpendicular to the guide
— Bolted base plate for anchorage to pier cap / pedestal



Pin Fixed Bearing

A machined steel pin located within a matching cylindrical housing, used at fixed supports to transmit horizontal seismic and braking forces to the substructure in any direction while still permitting rotation about any axis of the bearing.

— Transmits horizontal force in any direction in plan
— Accommodates rotation about any axis
— Used at the fixed end of long-span and seismic-zone structures

SPHERICAL BEARINGS

Fixed · Guided · Free Sliding · PTFE / UHMWPE – Stainless Steel

Spherical bearings transfer heavy vertical loads from the superstructure to the substructure while accommodating rotation and, where required, controlled horizontal movement. The bearing operates through a precision-machined convex and concave spherical sliding interface, allowing rotation in multiple directions while maintaining stable load transfer. The family is manufactured in different functional configurations selected to suit the movement and restraint condition at each support.



Fixed Spherical Bearing — Permits rotation about all horizontal axes while restraining horizontal movement in both directions. The spherical sliding surface accommodates rotation while the fixed arrangement provides reliable horizontal restraint.

Free Sliding Spherical Bearing — Permits rotation together with horizontal movement in both longitudinal and transverse directions. A PTFE / UHMWPE -on-stainless-steel sliding interface allows controlled movement while maintaining smooth and low-friction operation.

Guided Spherical Bearing — Permits rotation and horizontal movement in one specified direction while restraining movement in the perpendicular direction. This configuration is used where longitudinal or transverse movement is required at a support.

Spherical Sliding Assembly — Consists of precision-machined spherical surfaces combined with a PTFE / UHMWPE -on-stainless-steel sliding interface. The assembly is designed to accommodate rotation and horizontal displacement while transmitting the required vertical loads safely and efficiently.



A precision-engineered bearing assembly incorporating a convex spherical element and a matching concave surface to accommodate rotational movement in multiple directions. Depending on the configuration, the bearing can provide fixed, guided, or free sliding movement and is suitable for bridges and other structures subjected to heavy vertical loads and structural movements.

- Accommodates rotation in multiple directions
- Available in fixed, guided and free sliding configurations
- PTFE-on-stainless-steel interface for smooth, low-friction movement
- Designed to accommodate longitudinal and/or transverse movement as required
- Suitable for high vertical load transfer in bridge and structural applications

BRIDGE BEARINGS

Elastomeric · Rocker & Roller



Elastomeric Bearings

Manufactured and tested in accordance with IRC:83-2018 (Part II), these bearings comprise alternate layers of elastomer bonded to mild-steel reinforcing laminates, vulcanised into a single fully bonded block and supplied plain, fabric-reinforced or steel-laminated, with or without top and bottom mild-steel mounting plates.

- Natural or chloroprene rubber to IS:3400, 50–60 IRHD
- Accommodates translation in any direction and rotation about any axis by elastic deformation
- Design vertical load and movement sized to IRC:6 / IRC:83 loading
- Service temperature range −25°C to +70°C



Elastomeric bearings are supplied ex-works packed and identified by size and grid dimensions, ready for direct placement between superstructure and substructure.



Rocker & Roller Bearings

Used chiefly on railway bridges with open-web through girders of span in excess of about 30.5 m, where the vertical load and required movement are too large for sliding or elastomeric bearings. A rocker bearing is typically provided at the fixed end and a rocker-cum-roller bearing at the free end of each girder.

- Fabricated and machined steel assembly on a cast base plate
- Rated vertical load and longitudinal movement marked on the bearing identification plate
- Manufactured to RDSO drawings for Indian Railways applications

Seismic Arrestors

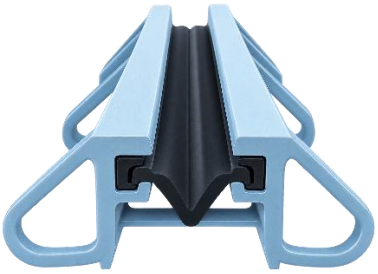


Designed to restrain excessive longitudinal and transverse movements during seismic events, Seismic Arrestors provide protection to bridge structures and other critical infrastructure. They allow controlled movement under normal service conditions while limiting sudden displacement caused by seismic forces.

- Designed to resist seismic and dynamic forces
- Allows controlled movement during normal operating conditions
- Restrains excessive displacement during seismic events
- Custom designed to meet specific project requirements

BRIDGE EXPANSION JOINTS

Strip Seal · Modular Seal - Compression Seal



Strip Seal Expansion Joint

A gland-type elastomer seal mechanically locked into a pair of rolled or extruded steel edge rails, which are anchored into the deck slab on either side of the joint gap. The monolithic edge-rail detail improves stability and service life, and accommodates moderate movement ranges typical of medium-span bridges.

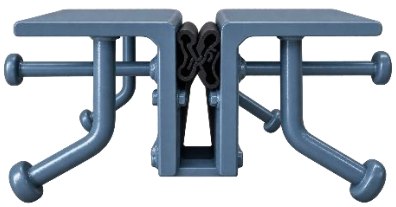
- Continuous elastomer gland forms the water barrier across the gap
- Steel edge rails anchored directly into the deck concrete
- Suited to medium movement-range joints on highway and flyover decks



Modular Seal Expansion Joint

For large-opening joints, multiple strip-seal elements are combined into a modular system, with each neoprene strip seal held mechanically between steel edge and separation beams. Every separation beam is carried on independent support bars welded to the beam, allowing the system to accommodate large total movement while distributing it across several smaller gaps.

- Multiple strip seals combined to suit total design movement
- Independent multi-support-bar arrangement for each separation beam
- Used for large-span and multi-span structures with high thermal movement



Compression Seal Expansion Joint

Consists of steel armored nosing anchored to the deck concrete at both edges of the joint gap, with a preformed elastomer seal held in permanent compression across the gap using a special adhesive/binder. Suited to horizontal movement up to about 40 mm and vertical differential of about 3 mm.

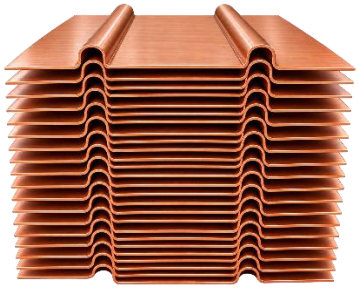
BRIDGE EXPANSION JOINTS

Slab Seal · Copper Strip



Slab Seal Expansion Joint

A steel-reinforced elastomeric slab unit fixed directly to the deck using bolt anchors, recommended for simply supported or continuous spans, right or lightly skewed (under 20°), moderately curved decks, and total movements up to about 50 mm.



Copper Strip Expansion Joint

A watertight joint of long service life in which the expansion medium is a formed copper strip, profiled to flex through the full design movement range while maintaining a continuous waterproof barrier across the joint gap.

RAILWAY & METRO EXPANSION JOINTS

Omega Seal

Metro rail and elevated-viaduct structures typically call for joints that can accept large gap movements from temperature effects and settlement, together with high water-tightness — a requirement well suited to the Omega profile.





Omega Joint

- Withstands high water pressure combined with large movement in all directions
- Suited to joints where large gap movement is expected from temperature effects and/or settlement
- Manufactured in a range of profile sizes to fit the specified movement and gap width
- Widely adopted for metro rail viaduct and station structures

RUBBER SHEETS & INDUSTRIAL HOSES

Long Length Rubber Sheets – Rubber Hoses



Long Length Rubber Sheets / Blankets

Vulcanised rubber sheeting supplied in long-length rolls for flooring, lining and general-purpose covering applications, available across a range of thicknesses, widths and durometer grades to suit the intended duty.

- Durable, long-lasting alternative to conventional flooring materials
- Manufactured from vulcanised, plasticised rubber compound
- Used for weight-room, gymnasium, garage and industrial walkway flooring



Rubber Hoses for Critical Applications

Flanged rubber hose assemblies engineered for suction and discharge duty in demanding industrial, dredging and marine service — built with reinforced carcass construction to withstand sustained pressure, abrasive media and continuous flexing.

- High resistance to pressure, temperature and conveyed media
- Flanged end-fittings to suit direct pipeline connection
- Supplied to national and international hose standards and to individual customer specification

PVC WATER STOPS



A flexible PVC profile that seals water at construction joints while also functioning as an expansion joint, manufactured from an anti-ageing PVC-based compound to IS:15058:2002. A typical waterstop comprises two identical halves either side of a central bulb, fixed at the centre of the concrete pour.

- Used in basements, water tanks, swimming pools, tunnels and other below-ground structures
- High elasticity and tensile strength; resistant to acids, alkalis, salts and other chemicals
- Withstands high hydrostatic pressure and accommodates joint movement from temperature change and differential settlement
- Standard nominal widths from 150 mm to 300 mm across a range of profiles and thicknesses

EPDM GROOVE RUBBER PAD

EPDM Groove Rubber Pad for RE Wall Panels



The EPDM groove rubber pad is a preformed elastomeric bearing/spacer pad used at the horizontal joints between successive courses of precast concrete facia panels in a Reinforced Earth Wall (RE Wall) / Reinforced Soil Wall system. Placed within the grooved recess cast into the top and bottom edges of adjacent panels, the pad keeps the panels physically separated, cushions the panel-to-panel contact and allows the wall face to accommodate the small elastic and differential settlements that occur as the reinforced fill behind the panels is placed and compacted, without inducing point-load stress concentrations, spalling or cracking at the panel edges.

- Material: Ethylene Propylene Diene Monomer (EPDM) synthetic rubber compound
- Confirms to ASTM D2000 / ISO 4097 – Grade 2, Type A, Class A
- Hardness: 80 ± 5 Shore A (Durometer), as prescribed in IRC:SP:102
- Location of use: horizontal grooves at top/bottom edges between vertically stacked RE Wall facia panels
- Size and thickness manufactured to suit the panel groove dimensions shown on the project drawings
- High resistance to ageing, ozone, UV exposure, weathering and temperature extremes, consistent with the long design life of RE Wall structures
- Inner face of the pad joint protected with a non-woven geotextile strip (≥100 mm) to arrest fines migration
- Functions: maintains uniform panel spacing and erection tolerance, cushions point loads, and accommodates minor differential settlement of the reinforced fill

DRAINAGE SPOUT



The drainage spout is a fabricated mild-steel assembly comprising a circular outlet pipe welded to a square/rectangular base flange, topped with a grated inlet box. It is cast into or bolted onto the bridge deck at designated low points to collect surface run-off and discharge it clear of the structure, preventing water accumulation, ponding and consequent damage to the deck, bearings and substructure below.

Grated Inlet & Outlet Pipe Assembly



Each unit is shop-fabricated from mild steel plate and pipe, fully welded and hot-dip galvanised (or painted) for corrosion protection, and finished with a slotted/grated top to filter debris while allowing free flow of water into the outlet pipe.

- Fabricated from mild steel plate and pipe, fully welded at all joints
- Square base flange for anchoring into the deck slab or fixing to the drainage recess
- Slotted grating at the inlet prevents entry of debris while allowing free water flow
- Outlet pipe of required diameter and length to suit deck thickness and drainage layout
- Hot-dip galvanised / corrosion-protective coated finish for long-term durability
- Used at deck low points, expansion joints and kerb lines on bridges and flyovers

STANDARDS & QUALITY

Products in this catalogue are manufactured and, where applicable, type-tested with reference to the following codes and specifications. Exact parameters for load capacity, movement range and dimensions are confirmed against project-specific structural requirements at the time of ordering.

- IRC:83 (Parts I,II,III,IV) — Bearings for Bridges
- IRC:SP:69 — Expansion Joints
- IS:12200 / IS:15058 — Water Stops
- RDSO Drawings — Railway / Metro Applications
- IRC:6 — Loads and Load Combinations
- IS:3400 — Methods of Test for Vulcanized Rubber
- MORTH Specifications for Road & Bridge Works
- UIC 772-2R · BS 5400-9 · AASHTO LRFD / EN 1337 (international reference)

Testing Facilities

Our Hyderabad works maintains an in-house test press and material-testing laboratory for verification of compression, shear and bond performance, together with metal and rubber Universal Testing Machines for raw-material and component-level testing.

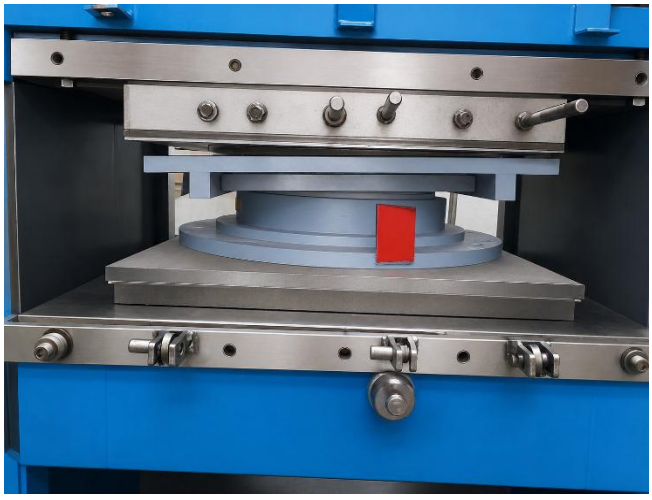
UNIVERSAL TENSILE TESTER



FRICTION TEST



ROTATION TEST



COMPRESSION TEST

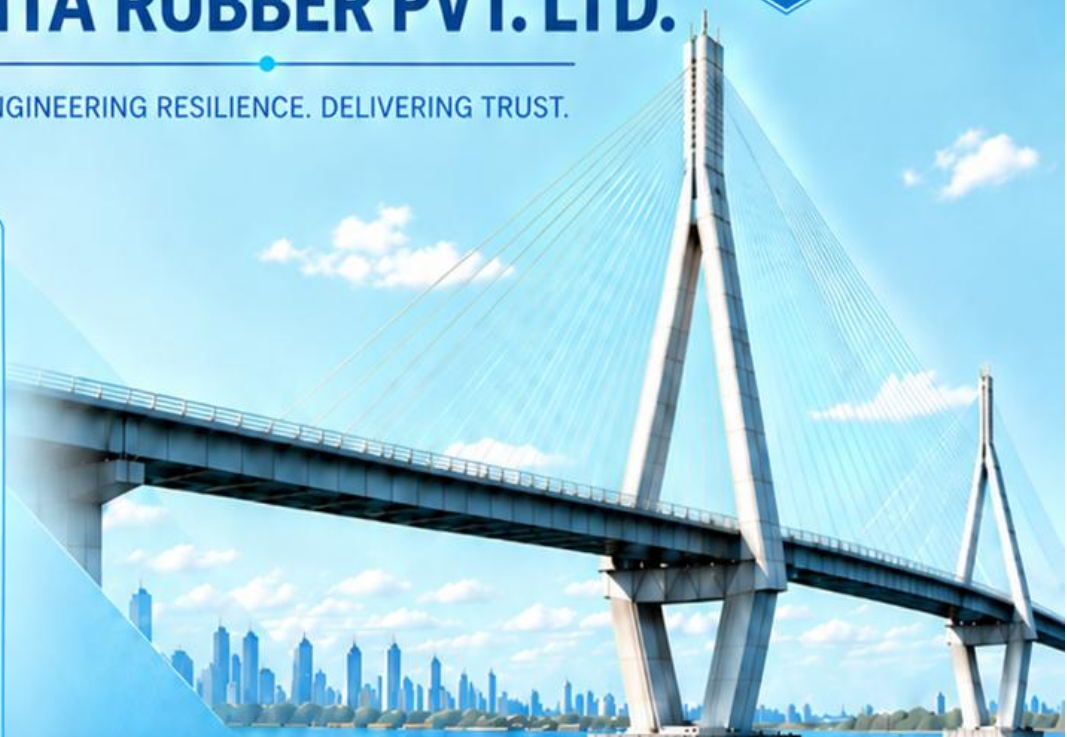


KANTA

BUILT FOR PERFORMANCE.
ENGINEERED FOR GENERATIONS.

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ENGINEERING RESILIENCE. DELIVERING TRUST.



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PRODUCT PROFILE

BRIDGE BEARINGS & EXPANSION JOINTS

ENGINEERED SOLUTIONS

TESTED FOR RELIABILITY

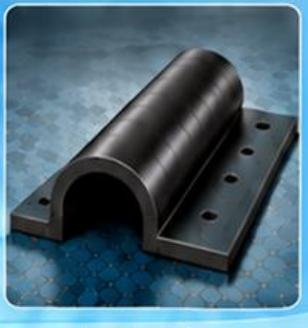
BUILT FOR DURABILITY

TRUSTED BY PROFESSIONALS









QUALITY ASSURED
Tested as per IRC, MoRTH & IS

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Decades of engineering experience

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